

**Notice of Allowability**

Application No.

10/507,284

Applicant(s)

CORKWELL ET AL.

Examiner

Art Unit

Vickey Ronesi

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to the amendment filed on 10/30/2006.

2.  The allowed claim(s) is/are 1-17.

3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review ( PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 7/26/06
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

***Statement of Reasons for Allowance***

The present claims are allowable over the closest prior art Killick et al (US 6,129,773), Baker (US 4,509,950), Nixon et al (US 3,637,357), Jenkins (US 4,456,454), and Rifkin et al (US 4,398,921) for the following reasons:

The present claims are drawn to a fuel composition comprising diesel fuel, ethanol, and a surfactant comprising (1) a hydrocarbylphenol or derivative thereof that is a Mannich base or an alkoxylated Mannich base or (2) a reaction product of a hydrocarbyl-substituted polycarboxylic acid or anhydride and an alcohol, an amine, an amino alcohol, an epoxide, or a mixture thereof or mixtures of (1) and (2), wherein the hydrocarbyl substituent has 4-20 carbon atoms and the surfactant has an HLB value of -30 to 20 and the ethanol is an anhydrous ethanol.

Killick discloses fuel blends comprising diesel oil, ethanol, and a fatty acid ester such as dioctyl maleate (Composition 31, col. 7, lines 35-40), however, the fatty acid ester dioctyl maleate does not contain a hydrocarbyl substituent. Killick neither discloses nor suggests an HLB value of -30 to 20 or that the ethanol is anhydrous ethanol.

Baker discloses a composition comprising diesel oil, ethanol, and a surfactant such as polybutenylsuccinic acid or anhydride reacted with a glycol (col. 3, lines 18-19), however, the hydrocarbyl group has more than 20 carbon atoms. Baker neither discloses nor suggests an HLB value of -30 to 20 or that the ethanol is anhydrous ethanol.

Nixon et al discloses a fuel emulsion containing diesel fuel and a surfactant of certain dicarboxylic acid derivatives derived from a reaction with amine and alcohols, however, it is does not disclose or suggest the use of ethanol (or any alcohol) as a solvent.

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Jenkins discloses a motor fuel composition comprising a fuel optionally mixed with other fuels (but not diesel) (col. 3, lines 30-31) and a Mannich reaction product of malonic acid, formaldehyde and an amine, however, the fuel is not a diesel fuel and it is neither disclosed nor suggested that the Mannich reaction product contain a hydrocarbylphenol or derivative thereof. Jenkins neither discloses nor suggests an HLB value of -30 to 20 or that the ethanol is anhydrous ethanol.

Rifkin et al a composition comprising diesel fuel, anhydrous ethanol (col. 13, lines 3-5), and Mannich reaction product of alkylphenol, an aldehyde, and an amine, however, the alkylphenol has a molecular weight of 400-1500, which is more than 20 carbon atoms. Rifkin et al also does not disclose an HLB value of -30 to 20.

Thus, it is clear that the references do not disclose or suggest the claimed invention.

In light of the above, it is clear that rejections of record are untenable and thus the present claims are passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/5/2007  
Vickey Ronesi

W/

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